

## (19) World Intellectual Property Organization International Bureau

(43) International Publication Date  
25 August 2005 (25.08.2005)

PCT

(10) International Publication Number  
WO 2005/076980 A2

(51) International Patent Classification: Not classified

(21) International Application Number: PCT/US2005/003769

(22) International Filing Date: 4 February 2005 (04.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 60/541,996 4 February 2004 (04.02.2004) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

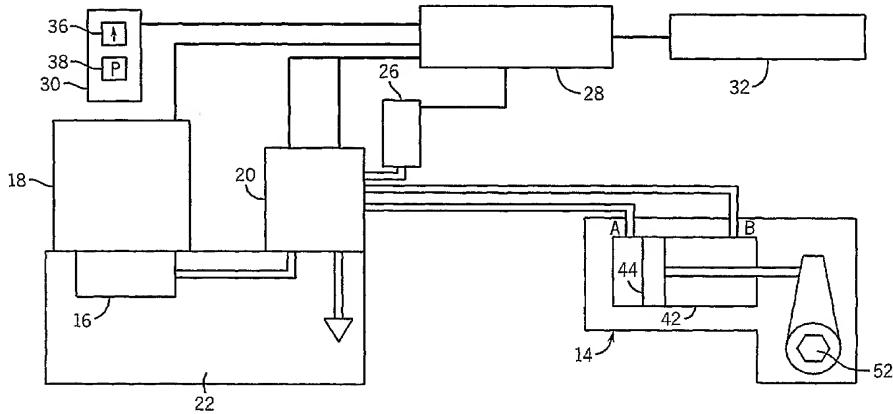
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

— without international search report and to be republished upon receipt of that report

[Continued on next page]

## (54) Title: HYDRAULIC TORQUE WRENCH SYSTEM



(57) **Abstract:** A hydraulic torque wrench system automates the tightening process by continuously operating the torque wrench to alternately advance and retract the wrench cylinder when the advance actuator is held by the operator until the desired pressure or torque is reached. If the advance actuator is released by the operator, the wrench retracts fully and stops advancing. If the advance actuator is not pressed for a period of time while the pump is running, the pump is automatically turned off. The pump can be turned off when the fastener has been tightened to the desired torque or pressure set point, or the pump can continue running in which event the reduction in duration of the alternation cycle between advancement and retraction of the torque wrench cylinder will audibly and visibly signal the operator that the fastener stopping point has been reached. The system can store information correlating pressures with torques for the wrench being used and can include a user adjustable pressure relief valve so it can be used similar to a conventional system. The system controller can be provided with a communications port to communicate with an external computer, either directly or over a network.

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